

In the Claims

Canceled Claims

Please cancel claims 1-2 and 4-15, as being drawn to the parent application.

Amended Claims

1 3.(currently amended) The apparatus according to of Claim † 20, wherein said the first
2 and/or said second ballistic covers layers comprise is selected from the group consisting of
3 a Kevlar belted fabric layer or a steel layer.

New Claims

1 16.(new) An apparatus for preventing cargo spills comprising:
2 a structure mounted in an interior of a means for transportation, where the structure
3 includes a hanging device supporting a flexible skeleton having a plurality of moveable
4 elements, where the skeleton conforms to a portion of the interior of the means of
5 transportation, and

6 a non-permeable, flexible bladder supported by the skeleton including an aperture
7 adapted to provide access to the bladder for loading and unloading the cargo,
8 where the structure is designed to deform in response to a breach or penetration of the
9 means of transportation and to transmit the deformation to the bladder while protecting the
10 bladder against rupture.

1 17.(new) The apparatus of Claim 16, wherein the structure further includes:
2 a first ballistic layer interposed between the skeleton and the bladder.

1 18.(new) The apparatus of Claim 16, wherein the structure further includes:
2 a first ballistic layer interposed between the skeleton and the bladder, and
3 a first oxygen scavenger layer interposed between the skeleton and first ballistic layer.

- 1 19.(new) The apparatus of Claim 16, wherein the structure further includes:
2 a first ballistic layer interposed between the skeleton and the bladder, and
3 a first oxygen scavenger layer interposed between the skeleton and first ballistic layer,
4 and
5 a second ballistic layer interposed between skeleton and the hull of the means for
6 transportation.
- 1 20.(new) The apparatus of Claim 16, wherein the structure further includes:
2 a first ballistic layer interposed between the skeleton and the bladder, and
3 a first oxygen scavenger layer interposed between the skeleton and first ballistic layer,
4 a second ballistic layer interposed between skeleton and the hull of the means for
5 transportation, and
6 a second oxygen scavenger layer interposed between the skeleton and second ballistic
7 layer.
- 1 21.(new) The apparatus of Claim 16, further comprising:
2 a pressure sensitive valve mounted within the aperture of the bladder, where the
3 pressure sensitive valve opens and releases a portion of the cargo in the bladder in response
4 to an increase in pressure in the bladder due to a breach or penetration of the means for
5 transportation.
- 1 22.(new) The apparatus of Claim 21, further comprising:
2 at least one tank connected to the aperture of the bladder designed to receive and hold
3 a part of the released cargo.
- 1 23.(new) The apparatus of Claim 22, wherein the at least one tank is expandable.

1 24.(new) The apparatus of Claim 22, wherein the means for transportation is selected
2 from the groups of a ship, a barge, a tanker aircraft, and a tanker truck.

1 25.(new) The apparatus of Claim 16, further comprising:
2 a header connected to the aperture of the bladder and designed to receive the released
3 cargo.

1 26.(new) The apparatus of Claim 25, further comprising:
2 at least one expandable tank connected to the header and designed to receive and hold
3 a part of released cargo.

1 27.(new) The apparatus of Claim 20, wherein the oxygen scavenger comprises powdered
2 sodium bicarbonate.

1 28.(new) The apparatus of Claim 20, wherein the ballistic layers comprise steel.

1 29.(new) The apparatus of Claim 22, wherein the ballistic layers comprise a Kevlar
2 belted fabric.

1 30.(new) The apparatus of Claim 16, wherein the elements comprise metallic links.

1 31.(new) The apparatus of Claim 16, wherein the elements comprise metallic plates.

1 32.(new) The apparatus of Claim 31, wherein the skeleton further comprises
2 interconnecting links mounted to the metallic plates.

1 33.(new) The apparatus of Claim 16, wherein the aperture is in a top surface of the
2 bladder and the structure further includes:

3 a multilayered top structure disposed over the top surface of the bladder, where the
4 multilayered deck structure includes an outer metallic layer, a first ballistic layer, an oxygen
5 scavenger layer, a second ballistic layer, and an inner metallic layer.

1 34.(new) An apparatus for preventing cargo spills mounted in an interior of a means for
2 transportation comprising:

3 a hanging device;

4 a flexible skeleton having a plurality of moveable elements and supported by the
5 hanging device, where the skeleton conforms to a portion of the interior of the means of
6 transportation,

7 a non-permeable, flexible bladder supported by the skeleton including an aperture
8 adapted to provide access to the bladder for loading and unloading the cargo,

9 a first ballistic layer interposed between the skeleton and the bladder, and

10 a first oxygen scavenger layer interposed between the skeleton and first ballistic layer,

11 a second ballistic layer interposed between skeleton and the hull of the means for
12 transportation, and

13 a second oxygen scavenger layer interposed between the skeleton and second ballistic
14 layer,

15 where the apparatus is designed to deform in response to a breach or penetration of
16 the means of transportation and to transmit the deformation to the bladder while protecting
17 the bladder against rupture.

1 35.(new) The apparatus of Claim 34, wherein the ballistic layers comprise a Kevlar
2 belted fabric.

1 36.(new) The apparatus of Claim 34, wherein the oxygen scavenger layers comprise
2 powdered sodium bicarbonate.

1 37.(new) The apparatus of Claim 34, wherein the elements comprise metallic links.

1 38.(new) The apparatus of Claim 34, wherein the elements comprise metallic plates.

1 39.(new) The apparatus of Claim 38, wherein the skeleton further comprises
2 interconnecting links mounted to the metallic plates.

1 40.(new) The apparatus of Claim 34, further comprising:

2 a pressure sensitive valve mounted within the aperture of the bladder, where the
3 pressure sensitive valve opens and releases a portion of the cargo in the bladder in response
4 to an increase in pressure in the bladder due to a hull breach or penetration.

1 41.(new) The apparatus of Claim 34, further comprising:

2 at least one tank connected to the aperture of the bladder designed to receive and hold
3 a part of the released cargo.

1 42.(new) The apparatus of Claim 41, wherein the at least one tank is expandable.

1 43.(new) The apparatus of Claim 34, further comprising:

2 a header connected to the aperture of the bladder and designed to receive the released
3 cargo.

1 44.(new) The apparatus of Claim 43, further comprising:

2 at least one expandable tank connected to the header and designed to receive and hold
3 a part of released cargo.

1 45.(new) A method for containing a cargo spill comprising:
2 equipping a means of transportation with a cargo storage apparatus comprising:
3 a flexible skeleton having a plurality of moveable elements and supported by
4 the hanging device, where the skeleton conforms to a portion of the interior of the
5 means of transportation,
6 a non-permeable, flexible bladder supported by the skeleton including an
7 aperture adapted to provide access to the bladder for loading and unloading the cargo,
8 a first ballistic layer interposed between the skeleton and the bladder, and
9 a first oxygen scavenger layer interposed between the skeleton and first
10 ballistic layer,
11 a second ballistic layer interposed between skeleton and the hull of the means
12 for transportation, and
13 a second oxygen scavenger layer interposed between the skeleton and second
14 ballistic layer,
15 where the structure is designed to deform in response to a breach or penetration
16 of the means of transportation and to transmit the deformation to the bladder while
17 protecting the bladder against rupture.
in response to a hull breach or penetration, transmitting a portion of a force associated
with a hull breach or penetration to the bladder causing the bladder to deform, and
releasing a portion of the cargo from the bladder to the header or to the header and the
at least one tank, where an amount of the released cargo is proportional to the increase in
pressure in the bladder due to its deformation.

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Respectfully submitted,



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